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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,447	12/13/2000	Guy Richard Chandler	JMYT-223US	4878

23122 7590 02/26/2003

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EXAMINER

TRAN, DIEM T

ART UNIT PAPER NUMBER

3748

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/623,447

Applicant(s)

CHANDLER ET AL.

Examiner

Diem Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-9 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-9 and 11-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

-This office action is in response to the amendment filed on 12/2/02. In this amendment, claims 1, 4, 9, 11 have been amended and claims 2, 3, 6, 10 have been canceled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 5, 7, 9, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murachi (US patent 5,746,989) in view of Sato et al. (US Patent 4,535,588).

Regarding claims 1, 9, 11, Murachi discloses an emission control exhaust gas aftertreatment apparatus for exhaust gases from diesel engines, comprising a source of NO₂ (5), a particulate trap (7) (see Figure 1), particulates are collected on the trap and combusted in the presence of said NO₂ in said trap (see col. 5, lines 43+); however, fails to disclose an exhaust gas by-pass effective under all operating conditions, wherein a portion of the exhaust gases do not pass the trap, such that between 50% and 85 wt % of engine out particulates are collected and combusted in the trap. Sato teaches that it is conventional in the art, to utilize said by-pass, wherein a portion of the exhaust gases do not pass the trap, clearly seen that 50-85 wt. % of engine out particulates are collected and combusted (see Figure 10)

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized said by-pass effective under all operating conditions, as taught by Sato in the Murachi method since the use thereof would have alleviated the increasing back pressure when the particulate trap becomes substantially blocked.

Regarding claims 4, 12, Murachi further discloses the source of NO₂ is a catalyst which is effective to convert at least a portion of the NO in the exhaust gases to NO₂ (see col. 5, lines 40-47).

Regarding claim 5, Murachi further discloses the exhaust gases pass through the catalyst before passing through the trap (see Figure 1).

Regarding claims 7, 13, Murachi further discloses that said apparatus in combination with NO_x control means being an NO_x absorbent (9) (see col. 4, lines 59-63; col. 11, lines 4-6).

Regarding claim 14, the modified Murachi device further discloses that the trap comprises a wall flow filter and the peripheral regions thereof comprise the bypass.

Regarding claim 15, Sato further teaches that a catalyst carried by the trap (see col. 3, lines 6-10).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murachi et al. in view of Sato et al. (US Patent 4,535,588) as applied to claim 13 above, and further in view of Tanaka et al. (US Patent 5,551,231).

Regarding claim 8, the modified Murachi apparatus discloses all the claimed limitations as discussed in claim 13 above; however, fails to specifically state that the

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NOx absorbent releases NOx when the temperature exceeds about 250°C. Tanaka teaches that NOx absorbed in the trap are routinely released about 200°C (see col. 6, lines 51-53, 57-60, 66-67, col. 7, lines 1-11). It would have been obvious to one having ordinary skill in the art, to have claimed such a temperature, since this adsorb/desorb cycle is a characteristic of virtually all NOx adsorbents.

Response to Arguments

Applicant's arguments filed 12/2/02 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:00 a.m.-5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 308-7763.

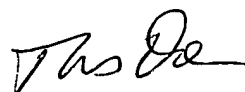
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

DT

February 21, 2003



Diem Tran
Patent Examiner
Art unit 3748



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700